



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION

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Sika Sarnafil, A Division of Sika Corp.
100 Dan Road
Canton, MA 02021

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Sika Sarnafil PVC Single Ply Roofing over Concrete Deck.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA renews and revises NOA No. 12-0313.15 and consists of pages 1 through 44.
The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 13-0422.05
Expiration Date: 07/05/16
Approval Date: 07/18/13
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ROOFING SYSTEM APPROVAL

Category: Roofing
Sub-Category: Single Ply
Material: PVC
Deck Type: Concrete
Maximum Design Pressure: -615 psf.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
G410 Felt	Various	ASTM D 4434	Fiberglass reinforced PVC roofing membrane with a non-woven felt backing.
G459	Various	ASTM D 4434	Fiberglass reinforced PVC Alloy asphalt compatible flashing membrane.
Sarnatape	Various	Proprietary	Air flow barrier tape
Sarnacol 2170	5 gallons	Proprietary	Solvent based bonding adhesive.
Sarnacol 2121	5 gallons	Proprietary	Water based bonding adhesive.
Sarnacol 2163		Proprietary	Insulation adhesive.
Sarnatred	3.25' x 32.8'	Proprietary	PVC walkway protection sheet.
Sarnavap-10	20' x 100'	Proprietary	Polyethylene air/vapor barrier.
SarnaWalkways	Various	Proprietary	PVC walkway protection sheet.
Sarnastack	Various	Proprietary	Prefabricated cone flashing.
Sarnaclad	Various	Proprietary	Heat weldable PVC/galvanized steel flashing

APPROVED INSULATIONS:

TABLE 2

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
Sarnatherm	Isocyanurate Insulation	Sika Sarnafil, A Division of Sika Corp.
Sarnatherm-25 PSI	Polyisocyanurate insulation board.	Sika Sarnafil, A Division of Sika Corp.
ACFoam Composite	Isocyanurate Insulation with perlite facer	Atlas Roofing Corp.
ACFoam-II, ACFoam-III	Isocyanurate Insulation	Atlas Roofing Corp.
ACFoam Supreme	Isocyanurate Insulation	Atlas Roofing Corp.
DensDeck, DensDeck Prime	Silicon treated gypsum	Georgia Pacific Gypsum LLC
ENRGY 3, JM ISO 3	Isocyanurate Insulation	Johns Manville Corp.



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APPROVED INSULATIONS:**TABLE 2**

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
ENRGY 3 Plus	Isocyanurate Insulation with wood fiberboard facer	Johns Manville Corp.
ENRGY 3 25 PSI	Isocyanurate Insulation	Johns Manville Corp.
Type X Gypsum	Gypsum Wallboard	Generic
XPS	Type IV Extruded polystyrene with a minimum density of 1.6 pcf	Generic
EPS	Type IX Expanded polystyrene with a minimum density of 1.8 pcf	Generic
High Density Wood Fiberboard	Wood fiber insulation	Generic
H-Shield, H-Shield-WF	Isocyanurate Insulation	Hunter Panels, LLC
ISO 95+ GL	Isocyanurate Insulation	Firestone Building Products Company, LLC
Multi-Max-3, Multi-Max FA-3	Isocyanurate Insulation	Rmax Operating, LLC
Thermarroof-3	Isocyanurate Insulation	Rmax Operating, LLC
Thermarroof Composite-3	Isocyanurate Insulation with perlite facer	Rmax Operating, LLC
Structodek High Density Fiberboard Roof Insulation	High Density Wood Fiber insulation board.	Blue Ridge Fiberboard, Inc.

APPROVED FASTENERS:**TABLE 3**

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
1.	#12 Standard Roofgrip, #14 Roofgrip, #15 Roofgrip	Insulation and membrane fastener	Various	OMG, Inc.
2.	CD-10	Insulation and membrane fastener	Various	OMG, Inc.
3.	3 in. Ribbed Galvalume Plate	Galvalume steel stress plate	3" round	OMG, Inc.
4.	OMG 3" Galvalume Steel Plate	Galvalume coated steel stress plate	3" round	OMG, Inc.
5.	Dekfast 12, Dekfast 14, Dekfast 15 HS	Insulation and membrane fasteners	Various	SFS Intec, Inc.
6.	Dekfast Galvalume Steel 3" Round	Galvalume AZ50 stress plate	3" round	SFS Intec, Inc.
7.	Sarnafastener	Insulation and membrane fastener	Various	Sika Sarnafil, A Division of Sika Corp.



8.	Sarnaplate	Insulation fastening plate.	3" round	Sika Sarnafil, A Division of Sika Corp.
9.	Sarnarail Polymer Batten Strip	Polymer Batten Bar	1" x 250'	Sika Sarnafil, A Division of Sika Corp.
10.	Sarnafastener-XP	Membrane and insulation fastener.	Various	Sika Sarnafil, A Division of Sika Corp.
11.	Sarnadisc XPN	Membrane and insulation fastening plate.	1.5" x 3.75"	Sika Sarnafil, A Division of Sika Corp.
12.	Sarnafastener Concrete	Insulation and membrane fastener	Various	Sika Sarnafil, A Division of Sika Corp.
13.	Sarnabar	Galvanized or stainless steel membrane fastening bar.	Various	Sika Sarnafil, A Division of Sika Corp.
14.	OMG 2" Barbed Plate	Membrane fastening stress plate.	2" round	OMG, Inc.
15.	OMG Heavy Duty	Insulation and membrane fastener	Various	OMG, Inc.

EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Celotex Technical Center	MTS Job No. 258215	TAS 114	09/09/97
Exterior Research & Design	02767.02.06	TAS 114	02/08/06
Factory Mutual Research Corporation	0X3A3.AM	4470	07/31/94
	0P6A6.AM	4470	03/03/94
	2X2A5.AM	4470	07/31/94
	0B9A0.AM	4470	10/22/96
	1Z5A6.AM	4470	07/18/97
	4B3A2.AM	4470	06/19/97
	3001396	4470	05/28/99
	3012964	4470	06/11/02
	3015643	4470	12/06/02
	3016201	4470	01/28/03
	3006785	4470	05/06/04
	3017292	4470	09/03/04
	3021131	4470	07/07/05
	3024229	4470	11/16/05
	3028309	4470	03/30/07
Underwriters Laboratories, Inc.	R8992	UL 790	05/15/13
Trinity ERD	S44790.06.13	ASTM D4434	06/05/13
	S42480.08.12	Physical Properties	08/20/12



APPROVED ASSEMBLIES

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(1): One or more layers of insulation adhered with approved adhesive, membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders: (Optional) Any UL or FM approved vapor retarder may be installed over the deck. One or more layers of any of the following insulations:

Base Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, ACFoam-III, Multi-Max FA-3, JM ISO 3, ISO 95+GL, Sarnatherm, H-Shield Minimum 1.5" thick	N/A	N/A
DensDeck, DensDeck Prime Minimum 0.5" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, ACFoam-III, Multi-Max FA-3, Sarnatherm Tapered	N/A	N/A

Note: All insulation shall be adhered to the deck in 3-3.5" wide beads spaced 12" o.c. of TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -45 psf. (See General Limitation #9)



Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(2): One or more layers of insulation adhered with approved adhesive, membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders: (Optional) Any UL or FM approved asphaltic vapor retarder may be installed over the deck or the base layer of insulation

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, ACFoam-III, ENRGY 3, Sarnatherm Minimum 1.5" thick	N/A	N/A
H-Shield (Requires top layer of approved insulation) Minimum 1.5" thick	N/A	N/A
Top Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck, DensDeck Prime Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in ½" to ¾" wide beads 12" o.c. of Millennium Pourable Foam Insulation Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2170 adhesive. Adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 0.5 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -75 psf. (with DensDeck or DensDeck Prime) (See General Limitation #9)
-127.5 psf. (Polyisocyanurate only) (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(3): One or more layers of insulation adhered with approved adhesive, membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders: (Optional) Any UL or FM approved asphaltic vapor retarder may be installed over the deck or the base layer of insulation

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, ACFoam-III, ENRGY 3, Sarnatherm Minimum 1.5" thick	N/A	N/A
H-Shield (Requires top layer of approved insulation) Minimum 1.5" thick	N/A	N/A
Top Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck, DensDeck Prime Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in ½" to ¾" wide beads 12" o.c. of Millennium Pourable Foam Insulation Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a ¼" x ¼" notched squeegee or Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -75 psf. (with DensDeck or DensDeck Prime) (See General Limitation #9)
-135 psf. (Polyisocyanurate only) (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(4): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarder (Optional):

Hot-applied:	Optional hot asphalt-applied base and/or ply sheets approved for use with roof cover followed by an additional asphalt-applied sheet.
Self-Adhered:	Optional self-adhered base membrane approved for use with roof cover followed by an additional self-adhered sheet.
Torch-applied:	Optional hot asphalt-applied base and/or ply sheets or optional torch-applied base membrane approved for use with roof cover followed by an additional torch-applied sheet.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, Multi-Max FA-3, H-Shield, ENRGY 3, Sarnatherm Minimum: 1.5" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, Multi-Max FA-3, H-Shield, ENRGY 3, Sarnatherm Tapered	N/A	N/A

Note: All insulation shall be adhered to the deck or vapor barrier in TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a ¼" x ¼" notched squeegee or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -115 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(5): One or more layers of insulation adhered with approved adhesive, membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved EPS Minimum 2" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved High Density Wood Fiberboard Minimum 1" thick	N/A	N/A
DensDeck, DensDeck Prime Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in ¾" – 1" wide beads 12" o.c. of OlyBond 500 or Spot Shot Adhesive Fastener. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a ¼" x ¼" notched squeegee.

Or

Sarnafil G410 Felt adhered with Sarnacol 2170 adhesive. Adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 0.5 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -120 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Minimum 2500 psi structural concrete or concrete plank

System Type A(6): One or more layers of insulation fully adhered with approved asphalt.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II		
Minimum 1.3" thick or tapered	N/A	N/A
Sarnatherm, ENRGY 3, ENRGY 3 Plus, ENRGY 3 25 PSI, H-Shield		
Minimum 1.4" thick or tapered	N/A	N/A
H-Shield-WF		
Minimum 1.9" thick or tapered	N/A	N/A
Top Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck, DensDeck Prime		
Minimum 1/4" thick	N/A	N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2170 adhesive. Adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 0.5 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(7): One or more layers of insulation adhered with approved adhesive, membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ENRGY 3, Sarnatherm, H-Shield Minimum 1.5" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck, DensDeck Prime Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in ¾" – 1" wide beads 12" o.c. of OlyBond 500 or Spot Shot Adhesive Fastener. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a ¼" x ¼" notched squeegee or Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Or

Sarnafil G410 Felt adhered with Sarnacol 2170 adhesive. Adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 0.5 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)



Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(8): One or more layers of insulation adhered with approved adhesive, membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders: (Optional) Any UL or FM approved asphaltic vapor retarder may be installed over the deck or the base layer of insulation

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, Multi-Max-3, ENRGY 3, H-Shield, ISO 95+GL, Sarnatherm Minimum 1.5" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved High Density Wood Fiberboard Minimum 0.5" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in ½" to ¾" wide beads 12" o.c. of Millennium One Step Foamable Adhesive, Sarnacol 2163 or Millennium Pourable Foam Insulation Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a ¼" x ¼" notched squeegee.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(9): One or more layers of insulation adhered with approved adhesive, membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders: (Optional) Any UL or FM approved asphaltic vapor retarder may be installed over the deck or the base layer of insulation

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, ACFoam-III, ENRGY 3, Sarnatherm, H-Shield Minimum 1.5" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved High Density Wood Fiberboard Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in ½" to ¾" wide beads 12" o.c. of Millennium Pourable Foam Insulation Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a ¼" x ¼" notched squeegee.

Maximum Design Pressure: -127.5 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(10): One or more layers of insulation adhered with approved adhesive, membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders: (Optional) Any UL or FM approved asphaltic vapor retarder may be installed over the deck or the base layer of insulation

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, Multi-Max-3, ENRGY 3, H-Shield, Sarnatherm Minimum 1.5" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck, DensDeck Prime Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in ½" to ¾" wide beads 12" o.c. of Millennium Pourable Foam Insulation Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2170 adhesive. Adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 0.5 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure; -127.5 psf. (See General Limitation #9)

Option #2 Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a ¼" x ¼" notched squeegee or Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure; -135 psf. (See General Limitation #9)

Maximum Design Pressure: See membrane options above.

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(11): One or more layers of insulation adhered with approved adhesive, membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, H-Shield, Sarnatherm Minimum 1.5" thick	N/A	N/A
DensDeck, DensDeck Prime Minimum 0.25" thick	N/A	N/A
Top Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck, DensDeck Prime Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in ¾" – 1" wide beads 12" o.c. of OlyBond 500 or Spot Shot Adhesive Fastener. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: G410 Felt adhered with Sarnacol 2170 adhesive. Adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 0.5 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Option #1 *Maximum Design Pressure; -127.5 psf. (See General Limitation #9)*

Option #2 Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a ¼" x ¼" notched squeegee or Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure; -150 psf. (See General Limitation #9)

Maximum Design Pressure: See membrane options above

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(12): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarder: Torch-applied: Optional torch-applied base membrane approved for use with roof cover followed by an additional torch-applied sheet.
Asphalt-applied: Optional hot asphalt-applied base and/or ply sheets approved for use with roof cover.

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, Multi-Max FA-3, H-Shield, ENRGY 3, Sarnatherm Minimum: 1.5" thick	N/A	N/A
Top Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, Multi-Max FA-3, H-Shield, ENRGY 3, Sarnatherm Minimum: 1.5 " thick	N/A	N/A

Note: All insulation shall be adhered to the deck or vapor barrier in TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -167.5 psf. (See General Limitation #9)



Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(13): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarder: Torch-applied: Optional torch-applied base membrane approved for use with roof cover followed by an approved torch-applied sheet.
Asphalt-applied: Optional hot asphalt-applied base and/or ply sheets approved for use with roof cover.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, Multi-Max FA-3, H-Shield, ENRGY 3, Sarnatherm or Approved XPS or EPS Minimum: 1.5" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck, DensDeck Prime Minimum: 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck or vapor barrier in TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -167.5 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(14): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarder (Optional): Hot-applied: Optional hot asphalt-applied base and/or ply sheets approved for use with roof cover followed by an additional asphalt-applied sheet.
Self-Adhered: Optional self-adhered base membrane approved for use with roof cover followed by an additional self-adhered sheet.

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved XPS or EPS Minimum: 1.5" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck, DensDeck Prime Minimum: 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck or vapor barrier in TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a ¼" x ¼" notched squeegee or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -180 psf. (See General Limitation #9)

Membrane Type:	PVC
Deck Type 3I:	Concrete, Insulated
Deck Description:	Min. 2500 psi structural concrete or concrete plank
System Type A(15):	One or more layers of insulation adhered with approved <u>adhesive</u> , membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, H-Shield, ENRGY 3, ISO 95+GL, Sarnatherm Minimum 1" thick	N/A	N/A
DensDeck, DensDeck Prime Minimum 0.25" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck, DensDeck Prime Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in full coating of OlyBond Adhesive Fastener at a rate of 1 gal/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2170 adhesive. Adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 0.5 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Option #1 *Maximum Design Pressure; -127.5 psf. (See General Limitation #9)*

Option #2 Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a ¼" x ¼" notched squeegee or Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure; -202.5 psf. (See General Limitation #9)

Maximum Design Pressure: See membrane options above



Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(16): One or more layers of insulation adhered with approved adhesive, membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved XPS Minimum 1" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck, DensDeck Prime Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in ¾" – 1" wide beads 12" o.c. of OlyBond 500 or Spot Shot Adhesive Fastener. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2170 adhesive. Adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 0.5 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure; -127.5 psf. (See General Limitation #9)

Option #2 Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a ¼" x ¼" notched squeegee or Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure; -202.5 psf. (See General Limitation #9)

Maximum Design Pressure: See membrane options above.

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(17): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarder (Optional): Hot-applied: Optional hot asphalt-applied base and/or ply sheets approved for use with roof cover followed by an additional asphalt-applied sheet.
Self-Adhered: Optional self-adhered base membrane approved for use with roof cover followed by an additional self-adhered sheet

One or more layers of any of the following insulations:

Base Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, Multi-Max FA-3, H-Shield, ENRGY 3, Sarnatherm, Minimum 2.0 pcf Approved XPS or EPS Minimum: 1.5" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck, DensDeck Prime Minimum: 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck or vapor barrier in TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -202.5 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(18): One or more layers of insulation adhered with approved adhesive, membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders: (Optional) Any UL or FM approved vapor retarder may be installed over the deck. One or more layers of any of the following insulations:

Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, ACFoam-III, Multi-Max FA-3, JM ISO 1, ISO 95+GL , Sarnatherm Minimum 1.5" thick	N/A	N/A
DensDeck, DensDeck Prime Minimum 0.5" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in 3-3.5" wide beads spaced 12" o.c. of TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -202.5 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(19): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarder (Optional): Hot-applied: Optional hot asphalt-applied base and/or ply sheets approved for use with roof cover followed by an additional asphalt-applied sheet.
Self-Adhered: Optional self-adhered base membrane approved for use with roof cover followed by an additional self-adhered sheet.

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, Sarnatherm Minimum: 1.5" thick	N/A	N/A
H-Shield (Requires top layer of approved insulation) Minimum: 1.5" thick	N/A	N/A
Top Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, Sarnatherm Minimum: 1.5 " thick	N/A	N/A

Note: All insulation shall be adhered to the deck or vapor barrier in TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -210 psf. (See General Limitation # 9)



Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(20): One or more layers of insulation adhered with approved adhesive, membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, ACFoam-III, ISO 95+GL, Sarnatherm Minimum 1.5" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in 3-3.5" wide beads spaced 12" o.c. of TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -210 psf. (See General Limitation # 9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(21): One or more layers of insulation adhered with approved adhesive, membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders: (Optional) Any UL or FM approved asphaltic vapor retarder may be installed over the deck or the base layer of insulation

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, Multi-Max-3, ENRGY 3, H-Shield, Sarnatherm Minimum 1.5" thick	N/A	N/A
DensDeck, DensDeck Prime Minimum 0.25" thick	N/A	N/A
Top Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck, DensDeck Prime Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in ½" to ¾" wide beads 12" o.c. of Millennium One Step Foamable Adhesive or Sarnacol 2163. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2170 adhesive. Adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 0.5 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Option #1 *Maximum Design Pressure; -127.5 psf. (See General Limitation #9)*

Option #2 Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a ¼" x ¼" notched squeegee or Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

*Maximum Design Pressure; -157.5 psf. (with Asphaltic vapor retarder)
(See General Limitation #9)*

*Maximum Design Pressure; -225 psf. (without vapor retarder)
(See General Limitation #9)*

Maximum Design Pressure: See membrane options above.



Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(22): One or more layers of insulation adhered with approved adhesive, membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders: (Optional) Any UL or FM approved asphaltic vapor retarder may be installed over the deck or the base layer of insulation

One or more layers of any of the following insulations:

Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft ²
ENRGY 3, Sarnatherm Minimum 1.5" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in full coverage of Millennium Pourable Foam Insulation Adhesive at a rate of 1 gal/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: G410 Felt adhered with Sarnacol 2170 adhesive. Adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 0.5 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Option #1 *Maximum Design Pressure; -127.5 psf. (See General Limitation #9)*

Option #2 Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee or Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure; -225 psf. (See General Limitation #9)

Maximum Design Pressure: See membrane options above.

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(23): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarder (Optional): Hot-applied: Optional hot asphalt-applied base and/or ply sheets approved for use with roof cover followed by an additional asphalt-applied sheet.

Self-Adhered: Optional self-adhered base membrane approved for use with roof cover followed by an additional self-adhered sheet

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
Multi-Max FA-3, H-Shield, ENRGY 3, Sarnatherm Minimum: 1.5" thick	N/A	N/A
Top Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft²
Multi-Max FA-3, H-Shield, ENRGY 3, Sarnatherm Minimum: 1.5" thick	N/A	N/A

Note: All insulation shall be adhered to the deck or vapor barrier in TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee or with Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -225.0 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(24): One or more layers of insulation adhered with approved adhesive, membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders: (Optional) Any UL or FM approved asphaltic vapor retarder may be installed over the deck or the base layer of insulation

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved EPS Minimum 1" thick	N/A	N/A
Approved XPS Minimum 1" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved High Density Wood Fiberboard Minimum 0.5" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in ½" to ¾" wide beads 12" o.c. of Millennium Pourable Foam Insulation Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a ¼" x ¼" notched squeegee.

Maximum Design Pressure: -150 psf. (with EPS) (See General Limitation #9)
-162.5 psf. (with XPS) (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Minimum 2500 psi structural concrete or concrete plank

System Type A(25): One or more layers of insulation fully adhered with approved asphalt.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II		
Minimum 1.3" thick or tapered	N/A	N/A
Sarnatherm, ENRGY 3, ENRGY 3 Plus, ENRGY 3 25 PSI, H-Shield		
Minimum 1.4" thick or tapered	N/A	N/A
H-Shield-WF		
Minimum 1.9" thick or tapered	N/A	N/A
Approved High Density Wood Fiberboard		
Minimum 1" thick or tapered	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved High Density Wood Fiberboard		
Minimum 1" thick or tapered	N/A	N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee.

Maximum Design Pressure: -162.5 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Minimum 2500 psi structural concrete or concrete plank

System Type A(26): One or more layers of insulation fully adhered with approved adhesive.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved EPS Minimum 1" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved High Density Wood Fiberboard Minimum 0.5" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in full coating of OlyBond Adhesive Fastener at a rate of 1 gal/sq. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee.

Maximum Design Pressure: -162.5 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(27): One or more layers of insulation adhered with approved adhesive, membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ISO 95+ GL		
Minimum 1.5" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved High Density Wood Fiberboard		
Minimum 0.5" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in ¾" – 1" wide beads 12" o.c. of OlyBond 500 or Spot Shot Adhesive Fastener. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a ¼" x ¼" notched squeegee.

Maximum Design Pressure: -162.5 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: 2500 psi structural concrete or concrete plank

System Type A(28): One or more layers of insulation adhered with approved adhesive

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarder (Optional):

Hot-applied:	Optional hot asphalt-applied base and/or ply sheets approved for use with roof cover followed by an additional asphalt-applied sheet.
Self-Adhered:	Optional self-adhered base membrane approved for use with roof cover followed by an additional self-adhered sheet
Torch-applied:	Optional hot asphalt-applied base and/or ply sheets or optional torch-applied base membrane approved for use with roof cover followed by an additional torch-applied sheet

One or more layers of any of the following insulations:

Base Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, Multi-Max FA-3, H-Shield, ENRGY 3, Sarnatherm Minimum: 1.5" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
Structodek High Density Wood Fiberboard Minimum: 0.5" thick	N/A	N/A

Note: All insulation shall be adhered to the deck or vapor barrier in TITE-SET Roofing Adhesive or 3M Polyurethane Foam Insulation Adhesive CR-20 applied in continuous 3-inch ribbons spaced 12" o.c. Refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee.

Maximum Design Pressure: -162.5 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Minimum 2500 psi structural concrete or concrete plank

System Type A(29): One or more layers of insulation fully adhered with approved asphalt.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II		
Minimum 1.3" thick or tapered	N/A	N/A
Sarnatherm, ENRGY 3, ENRGY 3 Plus, ENRGY 3 25 PSI, H-Shield		
Minimum 1.4" thick or tapered	N/A	N/A
H-Shield-WF		
Minimum 1.9" thick or tapered	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck, DensDeck Prime		
Minimum 1/4" thick	N/A	N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee or Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -202.5 psf. (See General Limitation #9)



Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Min. 2500 psi structural concrete or concrete plank

System Type A(30): One or more layers of insulation adhered with approved adhesive, membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarders: (Optional) Any UL or FM approved asphaltic vapor retarder may be installed over the deck or the base layer of insulation

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
Approved EPS Minimum 1.5" thick	N/A	N/A
Approved XPS Minimum 1" thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck, DensDeck Prime Minimum 0.25" thick	N/A	N/A

Note: All insulation shall be adhered to the deck in ½" to ¾" wide beads 12" o.c. of Millennium Pourable Foam Insulation Adhesive. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a ¼" x ¼" notched squeegee or Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -202.5 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Minimum 2500 psi structural concrete or concrete plank

System Type A(31): One or more layers of insulation fully adhered with approved asphalt.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II		
Minimum 1.3" thick or tapered	N/A	N/A
H-Shield (Requires top layer of approved insulation)		
Minimum 1.3" thick or tapered	N/A	N/A
Top Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck, DensDeck Prime		
Minimum 1/4" thick	N/A	N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20-40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee or Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -210 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Minimum 2500 psi structural concrete or concrete plank

System Type A(32): One or more layers of insulation fully adhered with approved asphalt.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
Sarnatherm, ENRGY 3, ENRGY 3 Plus, ENRGY 3 25 PSI, H-Shield Minimum 1.4" thick or tapered	N/A	N/A
Multi-Max FA-3 Minimum 1.5" thick or tapered	N/A	N/A
H-Shield-WF Minimum 1.9" thick or tapered	N/A	N/A
Top Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft²
DensDeck, DensDeck Prime Minimum 1/4" thick	N/A	N/A

Note: Concrete deck shall be primed with ASTM D 41 asphalt primer and allowed to dry prior to application of base sheet. All insulation shall be adhered to the deck in full mopping of approved asphalt within the EVT range and at a rate of 20 -40 lbs/100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels used as a top layer shall be placed with the polyisocyanurate side facing down.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 adhesive applied at 2.25 gal/sq. to the insulation using a 1/4" x 1/4" notched squeegee or Sarnacol 2170 adhesive rolled applied as a primer at a rate 1.0-1.25 gal/sq. to the insulation allowed to dry. Following a second coat roller applied of adhesive at 1.0 gal/sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -225 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Minimum 2500 psi structural concrete or concrete plank

System Type B: Base Layer of insulation mechanically attached, optional top insulation layer fully adhered with approved asphalt.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarder: (Optional) Any UL or FM approved vapor barrier approved for use with hot asphalt may be applied to the deck or perlite base layer.

Fire Barrier: (Optional) Minimum ¼ “ Type X Gypsum or DensDeck

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, ACFoam Composite (bottom layer only), H-Shield		
Minimum 1.3” thick or tapered	Any approved fastener	1:2
Minimum 2” thick or tapered	listed in Table 3	1:4
ENRGY 3, ENRGY 3 Plus, ENRGY 3 25 PSI, Sarnatherm, Sarnatherm-25 PSI		
Minimum 1.4” thick or tapered	Any approved fastener	1:3
Minimum 2” thick or tapered	listed in Table 3	1:4
DensDeck, DensDeck Prime		
Minimum ¼” thick	Any approved fastener	1:1.2
Minimum ½” thick	listed in Table 3	1:1.7
Multi-Max FA-3, Thermaroom Composite-3 (bottom layer only)		
Minimum 1.25” thick or tapered	Any approved fastener	1:2
Minimum 2” thick or tapered	listed in Table 3	1:4
Approved High Density Wood Fiberboard (top layer only)		
Minimum 1.4” thick	Any approved fastener	1:2
Minimum 1” thick	listed in Table 3	1:2

Note: Base layer shall be mechanically attached with fasteners and density described above. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners per board shall be increased maintaining the same fastener density (See Roofing Application Standard RAS 117 for fastening details).

Top Insulation Layer (Optional):	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II		
Minimum 1.3" thick or tapered	N/A	N/A
ENRGY 3, ENRGY 3 Plus, ENRGY 3 25 PSI, Sarnatherm, Sarnatherm-25 PSI		
Minimum 1.4" thick or tapered	N/A	N/A
DensDeck, DensDeck Prime		
Minimum ¼" thick	N/A	N/A
Multi-Max FA-3		
Minimum 1.25" thick or tapered	N/A	N/A
Approved High Density Wood Fiberboard		
Minimum 1" thick	N/A	N/A

Note: Optional top layer of insulation shall be adhered with approved asphalt within the EVT range and at a rate of 20-40 lbs./100 ft². Please refer to Roofing Application Standard RAS 117 for insulation attachment. Composite insulation boards used as a top layer shall be installed with the polyisocyanurate face down.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2170 applied at 1.25gal/sq. to the substrate and .5 gal/sq. to the back of the Membrane, or Sarnacol 2121 applied to the substrate only at 1.5 to 2.5 gal./sq.

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3I: Concrete, Insulated

Deck Description: Minimum 2500 psi structural concrete or concrete plank

System Type C(1): All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Vapor Retarder: (Optional) Any UL or FM approved vapor barrier approved for use with hot asphalt may be applied to the deck or perlite base layer.

Fire Barrier: (Optional) Minimum ¼ “ Type X Gypsum or DensDeck

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II, ACFoam-III, ACFoam Composite, ACFoam Supreme, H-Shield		
Minimum 1.3” thick or tapered	N/A	N/A
Sarnatherm, Sarnatherm-25 PSI, ENRGY 3, ENRGY 3 Plus, ENRGY 3 25 PSI, ISO 95+ GL		
Minimum 1.4” thick or tapered	N/A	N/A
Multi-Max FA-3, Thermarroof-3		
Minimum 1.25” thick or tapered	N/A	N/A
DensDeck, DensDeck Prime		
Minimum ¼” thick	N/A	N/A
Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
ACFoam-II,		
Minimum 1.3” thick or tapered	Any approved fastener	1:2
Minimum 2” thick or tapered	listed in Table 3	1:4
Sarnatherm, Sarnatherm-25 PSI, ENRGY 3, ENRGY 3 Plus, ENRGY 3 25 PSI		
Minimum 1.4” thick or tapered	Any approved fastener	1:3
Minimum 2” thick or tapered	listed in Table 3	1:4
DensDeck, DensDeck Prime		
Minimum ¼” thick	Any approved fastener	1:1.2
Minimum ½” thick	listed in Table 3	1:1.7
Approved High Density Wood Fiberboard (base layer only)		
Minimum 1” thick	Any approved fastener	1:2
	listed in Table 3	

Note: All layers shall be simultaneously fastened; see top layer for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2170 applied at 1.25gal/sq. to the substrate and .5 gal/sq. to the back of the Membrane, or Sarnacol 2121 applied to the substrate only at 1.5 to 2.5 gal./sq.

Maximum Design Pressure: -45 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 2I: Concrete, Insulated

Deck Description: Minimum 2500 psi concrete or concrete plank

System Type C(2): All layers of insulation simultaneously fastened; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations:

Base Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
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Any approved polyisocyanurate listed in Table 2

Minimum 1.5" thick	N/A	N/A
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Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Top Insulation Layer:	Insulation Fasteners (Table 3)	Fastener Density/ft²
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DensDeck Prime Minimum 5/8" thick	7 with 8	1:2
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Note: Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Membrane: Sarnafil G410 Felt, adhered with Sarnacol 2121 adhesive applied at a rate of 2.0 – 2.5 gal/sq. to substrate. Minimum 3" wide side lap is sealed with a 1.5" wide heat weld.

Maximum Design Pressures: -52.5 psf. (See General Limitation #7)

Membrane Type: PVC

Deck Type 3: Concrete, Non-Insulated

Deck Description: Minimum 2500 psi structural concrete or concrete plank.

System Type F(1): Membrane fully adhered to deck.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2170 applied to the substrate at 2 to 2.5 gal./sq.

Maximum Design Pressure: -390 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3: Concrete, Non-Insulated

Deck Description: Minimum 2500 psi structural concrete or concrete plank.

System Type F(2): Membrane fully adhered to deck.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 applied to the substrate at 2 to 2.5 gal./sq.

Maximum Design Pressure: -487.5 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3: Concrete, Non-Insulated

Deck Description: Minimum 2500 psi structural concrete or concrete plank.

System Type F(3): Membrane fully adhered to deck

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2170 roller applied to the substrate at 1.0 gal./sq. Then followed by second coat of 2170 roller applied at 1.0 gal/sq. Roof cover immediately placed into adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -547.5 psf. (See General Limitation #9)

Membrane Type: PVC

Deck Type 3: Concrete, Non-Insulated

Deck Description: Minimum 2500 psi structural concrete or concrete plank.

System Type F(4): Membrane fully adhered to deck.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

Membrane: Sarnafil G410 Felt adhered with Sarnacol 2121 squeegee applied to the substrate at 2 to 2.5 gal./sq. The roof cover is immediately placed into the adhesive and the top surface rolled with a weighted roller.

Maximum Design Pressure: -615 psf. (See General Limitation #9)

CONCRETE DECK SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine equivalent or enhanced fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117 and/or RAS 137, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. Insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9N-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE



NOA No.: 13-0422.05
Expiration Date: 07/05/16
Approval Date: 07/18/13
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